C L A I M S

1. A process for making a flexible, flame retardant polyurethane foam, the process comprising reacting a PO based polyol with foam-forming reactants to provide said polyurethane foam, wherein said polyol is prepared by ring-opening polymerization of alkylene oxide in the presence of a composite metal cyanide complex catalyst, and wherein said polyol is either free from EO moieties or comprises EO moieties in an amount of at most 1% w/w; wherein said polyol has a polydispersity index (Mw/Mn) in the range of from 1.18 to 1.5.

2. The process of claim 1 wherein said polyol contains EO moieties, if any, in an amount of at most 0.8% w/w.

3. The process of claim 1 or claim 2, wherein the polyol comprises only PO moieties.

4. The process of any preceding claim, wherein said polyol has a number average molecular weight in the range of from 2750 to 4000 Dalton and a nominal functionality (Fn) in the range of from 2 to 3.5.

5. The process of any preceding claim, wherein said polyol is obtained by reacting an initiator having a plurality of active hydrogen atoms with PO and optionally EO, the initiator being introduced continuously to a reactor together with the alkylene oxide and the catalyst, to carry out the polymerization of the alkylene oxide .

6. The process of any preceding claim, wherein the foam includes a flame retardant effective amount of flame retardant such that the foam passes flame resistance standard BS 5852, Part 2, Crib 5.

7. The process of any preceding claim, wherein said foam-forming reactants include melamine in an amount of

between 10 and 15 php, a halogenated phosphate supplemental flame retardant in an amount of between 4 and 10 php, and water in an amount of between 3 and 6 php.

8. A flexible polyurethane foam obtainable by the process of any preceding claim.

9. A shaped article comprising a flexible polyurethane foam as claimed in claim 8.

10. Use of a PO based polyol, prepared by ring-opening polymerization of alkylene oxide in the presence of a composite metal cyanide complex catalyst and being either free from EO moieties or comprising EO moieties in an amount of at most 1% w/w, in the preparation of a flexible polyurethane foam for the purpose of enhancing flame resistance of the resulting foam and/or lowering an amount of a flame retardant additive in the foam; wherein said polyol has a polydispersity index (Mw/Mn) in the range of from 1.18 to 1.5.